Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
	)	
Applications for Consent to the	)	
Transfer of Control of Licenses	)	
	)	
MediaOne Group, Inc.,	)	
Transferor,	)	CS Docket No. 99-251
	)	
To	)	
	)	
AT&T Corp.,	)	
Transferee	)	

EX PARTE REPLY DECLARATION OF
JANUSZ A. ORDOVER AND ROBERT D. WILLIG

1. Our names are Janusz A. Ordover and Robert D. Willig. We previously filed testimony in the Reply Comments of AT&T Corp. and MediaOne Group, Inc. in this docket ("Ordover-Willig MediaOne Decl.").

I. QUALIFICATIONS

A. Janusz A. Ordover

2. I am Professor of Economics and Director of the MA Program at New York University, which I joined in 1973. At New York University, I teach undergraduate and doctoral level courses in industrial organization economics, the field of economics concerned with competition among business firms and upon which "antitrust economics" is founded. I have

devoted most of my professional life to the study and teaching of industrial organization economics and to its application through antitrust and regulatory law and policy.

3. In July 1991, President George Bush appointed me to the position of Deputy Assistant Attorney General for Economics in the Antitrust Division of the Untied States Department of Justice ("DOJ"). In this post, I participated in the drafting of the 1992 Horizontal Merger Guidelines, which have been widely used by courts and antitrust enforcement agencies. In addition, I led many merger reviews that employed and developed methodologies to define relevant markets in merger and other cases. I returned to New York University in 1993.

4. I have been actively involved in the formulation of public policy in the telecommunications sector. In particular, I have submitted written and oral testimony for AT&T to the Federal Communications Commission and to the state regulatory commissions in the Midwest, New England, and New York on a number of issues, including the pricing of unbundled network elements and access to bottleneck facilities.

5. I have written extensively on a wide range of antitrust and telecommunications topics, such as mergers and joint ventures, predatory conduct and entry barriers. My antitrust articles have appeared in the *Yale Law Journal*, the *Harvard Law Review*, the *Columbia Law Review*, and many other journals, monographs and books, here and abroad. A full list of my articles and other professional publications and activities is presented in my *curriculum vitae*, which is attached as Exhibit 1.

6. I have lectured extensively on antitrust topics to the American Bar Association, the International Bar Association, and the Federal Trade Commission ("FTC"). I recently deliv-

ered lectures to the FTC during its hearings on the Future of Antitrust Enforcement, which were organized by FTC Chairman Robert Pitofsky. I have also lectured on antitrust policy at colleges and universities in the United States and abroad, and at many conferences and meetings sponsored by various legal organizations.

7. I have acted as a consultant on antitrust and other competition matters to the DOJ, the FTC, and the post-communist governments of Poland, Russia, and Hungary. I have also consulted for the World Bank and the Organization for Economic Cooperation and Development in Paris. I have acted as a consultant in numerous antitrust lawsuits and investigations, including market definition and anti-competitive conduct matters for the FTC, DOJ and private clients in the United States, Australia, Germany and the European Union. I have extensive experience in the analysis of competitive effects of business strategies, including tying and bundling.

B. Robert D. Willig

8. I am Professor of Economics and Public Affairs at the Woodrow Wilson School and the Economics Department of Princeton University, a position I have held since 1978. Before that, I was Supervisor in the Economics Research Department of Bell Laboratories. My teaching and research have specialized in the fields of industrial organization, government-business relations and welfare theory.

9. I served as Deputy Assistant Attorney General of Economics in the Antitrust Division of the DOJ from 1989 to 1991. I also served on the Defense Science Board task force on the antitrust aspects of defense industry consolidation and on the Governor of New Jersey's task force on the market pricing of electricity.

10. I am the author of *Welfare Analysis of Policies Affecting Prices and Products*; *Contestable Markets and the Theory of Industry Structure* (with W. Baumol and J. Panzar), and numerous articles, including "Merger Analysis, IO theory, and Merger Guidelines." I am also a co-editor of *The Handbook of Industrial Organization*, and have served on the editorial boards of the *American Economic Review*, the *Journal of Industrial Economics* and the MIT Press Series on regulation. I am an elected Fellow of the Econometric Society and an associate of The Center for International Studies.

11. I have been active in both theoretical and applied analysis of telecommunications issues. Since leaving Bell Laboratories, I have been a consultant to AT&T, Bell Atlantic, Telstra and New Zealand Telecom, and have testified before the U.S. Congress, the Federal Communications Commission, and the public utility commissions of about a dozen states. I have been on government and privately supported missions involving telecommunications throughout South America, Canada, Europe, and Asia. I have written and testified on such subjects within telecommunications as the scope of competition, end-user service pricing and costing, unbundled access arrangements and pricing, the design of regulation and methodologies for assessing what activities should be subject to regulation, directory services, bypass arrangements, and network externalities and universal service. On other issues, I have worked as a consultant with the FTC, the Organization for Economic Cooperation and Development, the Inter-American Development Bank, the World Bank and various private clients. A full list of my articles and other professional publications and activities is presented in my *curriculum vitae*, which is attached as Exhibit 2.

II. PURPOSE OF STATEMENT

12. We have been asked to comment on certain matters raised in the Ex Parte Reply Declaration of Jerry A. Hausman and J. Gregory Sidak ("Hausman-Sidak Reply") and the Ex Parte Reply Declaration of Robert H. Gertner ("Gertner Reply"). These declarations make three main points.

13. *First*, they argue that broadband Internet service is a separate relevant market from narrowband Internet service. In our initial declaration, we explained that the price of dial-up service (*i.e.*, narrowband) at present constrains broadband pricing because virtually everyone who considers signing up for a broadband service must be persuaded to switch from dial-up, and fewer will do so if broadband becomes relatively more costly. However, according to Professor Hausman and Mr. Sidak, it is wrong to consider a broadband provider's desire to attract *new* customers when analyzing whether it would find a price increase to be profitable. In their view, the only pertinent consideration is how many *existing* broadband subscribers would switch back to narrowband in case of a price increase. They also argue, as does Professor Gertner, that the price differences between broadband and narrowband are larger than we suggested. On a fully amortized basis, they say, cable modem service costs $8 per month more than dial-up service.

14. In support of their proposed market definition, Hausman and Sidak present an analysis which purports to show that broadband customers would be willing to pay significantly more than the prices currently being charged by AT&T for cable modem service. They do not, however, offer an explanation of what keeps AT&T from charging higher prices – whether the constraint is due, for example, to the need for promotional pricing in order to persuade Internet users to try switching from narrowband service providers, or whether the pricing constraint arises

from broadband providers utilizing other technologies, such as Digital Subscriber Lines (DSL). Hausman and Sidak also argue that broadband access cannot be in the same market as narrow-band access because the price of cable modem service is not correlated with the price of a second telephone line.

15. *Second*, Hausman and Sidak contend that the merged AT&T/MediaOne entity will have monopoly power in the putative "broadband Internet access" market because cable modem services have gotten off to a faster start in the marketplace than DSL. They claim that this monopoly power will be durable, notwithstanding the recent "explosive" growth of DSL, because of "the nature of network industries in general." Relying on the same network effects, they contend that the merged company will be able to parlay its monopoly power in the "broadband Internet access market" into monopoly power in the markets for Internet content and Internet advertising.

16. Specifically, Hausman and Sidak contend that the merged company will have the ability and incentive to deprive its subscribers of the content they desire because, in their view, only a "small" number of customers would go to a competing broadband service. They contend that the merged company will be able to raise the price for advertising on its home page because Web advertisers will have no other means of reaching certain subscribers. In addition, they assert that AT&T's head start in the *domestic*, *residential* broadband marketplace will allow it to dictate a closed, proprietary standard to which software developers (aiming for the *global* market) will flock. In addition, they claim that AT&T will have an incentive to thwart the development of cable-based Internet telephony.

17. *Third*, Hausman and Sidak deny that the merger will produce any public interest benefits. They assert that the accelerated deployment and marketing of DSL by the incumbent LECs is unrelated to the merger proposal. They deny that AT&T and MediaOne have any significant asset synergies that cannot be achieved through "interconnection" or brand licensing agreements, joint venture contracts, or other contractual arrangements that fall short of merger. And they "hypothesize" that the purchase premium offered by AT&T for MediaOne is evidence that AT&T expects to capture monopoly rents, not evidence that AT&T and MediaOne intend to offer large scale facilities-based telephony and internet services over the MediaOne network.

III. THE MERGER WILL NOT HAVE ANTICOMPETITIVE EFFECTS IN ANY RELEVANT MARKET

18. When the Commission approved AT&T's merger with TCI, it concluded that there was no need to decide whether broadband and narrowband Internet services were in the same relevant market:

> Even if we were to consider a market defined to include only high-speed Internet access services, we would still conclude that the merger is unlikely to adversely affect the public interest in a competitive market. Although AT&T-TCI together might be able more quickly to deploy high-speed Internet access services and win a significant number of residential Internet access customers, it appears that quite a few other firms are beginning to deploy or are working to deploy high-speed Internet access services using a range of other distribution technologies.[1]

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[1] Memorandum Opinion and Order, *In re Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc., Transferor, to AT&T Corp., Transferee*, 14 FCC Rcd. 3160, ¶ 95 (1999) ("*AT&T-TCI*").

19. In this section, we show that the same conclusion applies to AT&T's merger with MediaOne. Regardless of how the relevant market is defined, the merger will not adversely affect competition. This is true for at least three independent reasons.

20. *First*, there is vigorous and growing competition among Internet service providers, even within the broadband segment. In particular, DSL deployment has proceeded much more rapidly than almost anyone expected, and DSL subscriptions have skyrocketed. Likewise, satellite-based and wireless broadband technologies are rapidly emerging as competitive threats.

21. *Second*, the merger will not reduce competition in any Internet market because Excite@Home and Road Runner do not compete as providers of broadband service.

22. *Third*, the merger will not enable AT&T to impose anticompetitive restrictions. If AT&T were so foolish as to impose unnecessary limitations on the content available to its customers, it would only succeed in driving Internet users into the waiting arms of its broadband competitors, or in encouraging them to stick with a dial-up service provider. Likewise, if AT&T were to adopt a closed, proprietary platform, it would limit the applications that could be used, thus alienating both Internet users and applications developers. And if it were to raise prices for advertising on its home page, it would simply send advertisers to the vast number of Web sites and other media eager for their business.

A. The Exploding Internet Market Is Fiercely Competitive, Even Within the Broadband Segment.

23. Internet usage is exploding. Over 100 million American adults now surf the Web (compared to 65 million a year ago), and continued growth is expected for some time to come.[2] AOL alone has over 19 million subscribers, and they are on-line for an average of nearly an hour a day (as opposed to 14 minutes in 1996).[3] As the Commission noted, this "is a superlative record for a service that consumers had barely heard of five years ago."[4]

24. The broadband segment of the Internet service market, though modest now, is expected to grow rapidly as consumer awareness broadens and millions of Americans switch from narrowband. Some forecasters predict that by 2003, more than 15 million U.S. Internet users will subscribe to a broadband service; others believe there will be more than 25 million broadband subscribers.[5]

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[2] Strategis Group, "U.S. Internet Breaks 100 Million Mark" (Nov. 9, 1999), <www.strategisgroup.com/press/pubs/iut99.html>.

[3] News Release, "AOL Surpasses 19 Million Members" (Oct. 25, 1999); Business Wire, June 16, 1999 (interview with Bob Pittman, President of AOL), available on Westlaw.

[4] Report, *Inquiry Concerning the Deployment of Advanced Communications Capability to All Americans in a Reasonable and Timely Fashion*, 14 FCC Rcd. 2398, ¶ 86 n. 207 (1999) ("*706 NOI Report*").

[5] Forrester Research predicts that 16 million U.S. households will have broadband connections by 2002 and 26 million by the following year. By 2003, there will be 8.3 million cable modem subscribers (according to Strategis Group) and 9.6 million DSL lines (according to TeleChoice). *See* The Forrester Report (April 1999), <www.forrester.com/ER/Research/Report/Excerpt/0,1338,7007,FF.html>; The Forrester Report, "Broadband Hits Home" (Aug. 1998), <www.forrester.com/ER/Research/Report/Excerpt/0,1338,3296,FF.html>; Cable Modem University, "Stats/Projections" <www.catv.org/modem/stats>; TeleChoice, "Deployment – Updated 11/5/99," <www.xdsl.com/content/resources/deployment_info.asp>.

25. The growth of broadband service will likely follow the typical "S Curve" pattern.[6] The Commission made this very point in the *706 NOI Report*:

> Typically, a successful product's "S Curve" reflects (a) very few sales during its "launch period," which may last for years, (b) a steep rise in sales during the product's "take off" period as "positive feedback" from consumers stimulates additional sales and additional sales lower costs and prices per unit, and then (c) sales leveling off as the market approaches saturation.[7]

26. There can be little doubt that broadband Internet service is still in the "launch period" and that there is a very low level of consumer awareness about it.[8] AT&T's incentive is to attract millions of new broadband subscribers by creating incentives to try the new service, not to maximize the short-term profits from its existing customer base or from a relatively small pool of "early adopters." Consequently, static analyses, like those proffered by Professor Hausman and Mr. Sidak, mischaracterize AT&T's business objectives and strategies.

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[6] For discussions in the literature about the characteristic "S Curve" pattern of growth for successful new products, *see* Sharon M. Oster, *Modern Competitive Analysis*, at 125-26, 293-95 (1994); Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, at 178 (1999); Frank M. Bass, "The Relationship between Diffusion Rates, Experience Curves, and Demand Elasticities for Consumer Durable Technological Innovations," Jnl. of Business, at 551-67 (July 1980).

[7] *706 NOI Report* ¶ 33 n. 44.

[8] A recent study by the Strategis Group indicates that the overwhelming majority of consumers say they know "little or nothing" about either cable modem or DSL service. The Strategis Group, *Internet User Trends: Mid-Year 1999*, excerpts available at <www.strategisgroup.com>.

1. DSL is already a potent competitive force in the broadband arena

27. In our prior declaration, we demonstrated that DSL is *already* a powerful competitive force in the marketplace.[9] Hausman and Sidak respond by belittling the significance of DSL, claiming that the projections we cited are "far outside the consensus forecasts." They assert that unless the AT&T/MediaOne acquisition is stopped, "the broadband race may be over" because "the early leader in any broadband Internet access may enjoy a 'lock-in' of customers and content providers."[10] In fact, the passage of time shows how correct we were in our assessment, and how off-the-mark Hausman and Sidak were. Only a few weeks ago, GTE issued a press release touting the "exploding" customer demand for DSL.[11] And SBC, which did not even begin marketing its DSL service until January of this year, passed the 100,000-customer milestone in October.[12]

28. Hausman and Sidak's view that "the broadband race may be over" is obviously not shared by the decision-makers in the industry. Both incumbent and competitive local exchange carriers are spending billions of dollars to develop and deploy DSL products. Huge investments are also being made in wireless and satellite broadband technologies. Industry leaders clearly believe that non-cable technologies can establish a viable position, and they reject

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[9] Ordover-Willig MediaOne Decl. ¶¶ 98-101.

[10] Hausman-Sidak Reply ¶ 40.

[11] News Release, "GTE continues to make it easier for customers to enjoy high-speed Internet access" (Nov. 10, 1999) <www.gte.com/AboutGTE/NewsCenter/News/Releases/DSLFreeInstall.html>.

[12] News Release, "SBC First to Surpass 100,000 DSL Subscribers" (Oct. 18, 1999), <www.sbc.com>; Kinetic Strategies, "SBC Commits to Massive Broadband Rollout," Cable Datacom News (Nov. 1, 1999) <cabledatacomnews.com/nov99/nov99-5.html>.

the idea that cable has an insurmountable lead. Only last month, SBC announced a $6 billion initiative (dubbed "Project Pronto") to accelerate DSL deployment and "transform the company over the next three years into the largest single provider of advanced broadband services in America."[13] Likewise, the head of AOL dismissed the significance of cable's head start:

> I think it's a little silly to think of cable having a huge lead in this space when the broadband opportunity is only beginning to emerge. The numbers are relatively small. The total number of [subscribers] @Home has after four years in business is less than the net additional subscribers we had for our AOL brand alone in the last three months.[14]

29. At the present time, DSL sales are growing at a much faster rate than cable modem sales.[15] According to one analyst, cable modem service has only "a six-month lead on DSL technologies.... DSL is growing faster and is catching up rapidly."[16] Some analysts believe that DSL sales will overtake cable modem sales within a few years.[17] Indeed, the head of GTE, in discussing DSL, declared that "the local telephone company is going to be the principal

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[13] News Release, "SBC Launches $6 Billion Broadband Initiative," <www.sbc.com> (October 18, 1999).

[14] Diane Mermigas, "AT&T in peace talks," Electronic Media, at 20 (Nov. 1, 1999).

[15] Cambridge Telecom Report, "DSL Deployment Surges Well Beyond Projections; Grows 5 Times Faster than Cable in 6-Month Period," 1999 WL 8104033 (Aug. 23, 1999); Shy Shin Luh, "DSL," Washington Post, p. F5 (Aug. 23, 1999); Press Release, US West (Aug. 17, 1999) ("DSL is growing at a consistently faster pace than cable modem services"), <www.uswest.com/news/081799.html>.

[16] Sylvia Dennis, "DSL Taking Off Big Time," Newsbytes News Network (Aug. 17, 1999), 1999 WL 20018859.

[17] Dan Costa, "The Battle for Broadband," Computer Shopper, at 255 (Oct. 1, 1999) ("Datapoint predicts that DSL sales will surpass cable modems within a few years"); "Report: ADSL Will Overtake Cable," Wired News Report (Dec. 18, 1998) (describing report by Allied Business Intelligence), <www.wired.com/news/technology/story/16922.html>.

vehicle to bring data communications to the world in the years ahead."[18] A recent report by TeleChoice shows spectacular DSL growth during 1999 and projects continued rapid growth in the future[19]:

Date	DSL lines in U.S.
1998 (year end)	39,000
3/31/99	74,000
6/30/99	159,000
9/30/99	275,000
1999 (year end)*	575,000
2000 (year end)*	2,107,000
2001 (year end)*	5,103,000
2002 (year end)*	7,655,000
2003 (year end)*	9,569,000

* Projected

30. The so-called "consensus forecasts" cited by Hausman and Sidak are outdated and obsolete. One of them predicted that there would be "almost 70,000 residential DSL subscribers" by the end of 1999.[20] That forecast that was off by a factor of about 600 percent; it now

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[18] Charles Lee, "Net Gains: Obstacles and Opportunities in a Network World" (Sept. 23, 1999), available at <www.gte.com/AboutGTE/NewsCenter?Executive/Cornellscript11-99.htm>.

[19] TeleChoice, "Deployment – Updated 11/5/99," <www.xdsl.com/content/resources/deployment_info.asp>. The Yankee Group predicts 4.1 million DSL lines in 2002. Forrester Research predicts 3.6 million DSL lines that year and 7.74 million lines in 2003. *See* Sarah L. Roberts-Witt, "The Coming DSL-Cable Race," Internet World (Nov. 15, 1999), available at <www.iw.com/print/1999/11/15/infra/19991115-dsl.html>.

[20] The Strategis Group, *High-Speed Internet 1998-1999* (Dec. 1998), summarized at <www.strategisgroup.com/press/pubs/hsi982.html>.

appears that there will be about 500,000 residential DSL subscribers by year's end.[21] All of the forecasts cited by Hausman and Sidak were issued between December 1998 and May 1999. Much has happened since then. The BOCs and GTE have launched major initiatives to accelerate their deployment of DSL.[22] At the beginning of this year, the BOCs and GTE had announced plans to offer DSL to about 20 million homes by the end of 1999.[23] Now, however, they have intensified their efforts to such an extent that over 40 million lines will be DSL-capable by year's end.[24] Furthermore, to increase DSL sales, several of the BOCs and GTE have cut prices.[25] They have also formed alliances with major ISPs (such as AOL and Prodigy),[26] with retailers

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[21] *See* Sarah L. Roberts-DeWitt, "Cable Is Coming on Strong," Internet World (Nov. 1, 1999), available at <www.iw.com/print/1999/11/01/infra/19991101-cable.html> (citing TeleChoice).

[22] In July 1999, Bell Atlantic announced that it would double its deployment of DSL this year. That same month, Ameritech launched its DSL program and GTE announced that it was accelerating DSL deployment. In October 1999, SBC announced its $6 billion "Project Pronto" initiative. *See* News Release, "Bell Atlantic Doubles Infospeed DSL Deployment," <www.ba.com/nr/1999Jul/19990824002.html> (July 28, 1999); David Schobert, "Ameritech takes DSL leap – finally," Telephony (July 26, 1999), 1999 WL 11171924; News Release, "GTE to offer lower-priced, higher speed Internet access service while accelerating deployment in 17 states," <www.gte.com/AboutGTE/NewsCenter/News/Releases/ADSLBronze.html> (July 22, 1999); News Release, "SBC Launches $6 Billion Broadband Initiative," <www. sbc.com> (Oct. 19, 1999).

[23] *706 NOI Report* ¶ 42.

[24] *See* Fred Dawson, "DSL Deployment Hits the Throttle," Multichannel News, at 73 (Oct. 11, 1999), at 73.

[25] Bloomberg News, "GTE slashes price for its DSL service," CNET News (July 22, 1999), <news.cnet.com/news/0-1004-200-345247.html?tag=st.ne.1004-200-14334217>; News Release, "GTE continues to make it easier for customers to enjoy high-speed Internet access" (Nov. 10, 1999), <www.gte.com/AboutGTE/NewsCenter/News/Releases/ DSLFreeInstall.html>; John Borland, "US West expands discount DSL plans," CNET News (Sept. 15, 1999), <news.cnet.com/news/0-1004-200-119960.html?tag=st.cn.1>.

[26] Patricia Fusco, "AOL Expands Broadband Offerings," *ISP News* (July 27, 1999), available at <www.internetnews.com/isp-news/print/0,1089,8_169601,00.html>; Stephanie Mehta, "SBC,

(such as CompUSA and Staples),[27] and with computer manufacturers (IBM).[28] In addition, the "G.Lite" DSL standard was recently adopted – an event that "had a profound impact on market expectations about the growth curve in broadband connectivity."[29] In light of these developments, DSL deployment "is far exceeding expert predictions,"[30] and, consequently, forecasters have been dramatically revising upwards their projections of DSL penetration.[31]

31. The competitive local exchange carriers (CLECs) are also aggressively establishing a broadband presence,[32] and they are pursuing residential customers as well as businesses. Covad's network already passes 25 million homes and businesses, and by the end of 2000 it

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Prodigy to Combine Internet Plans," Wall Street Journal, at A3 (Nov. 23, 1999); FCC Cable Services Bureau, *Broadband Today*, at 28 (Oct. 1999).

[27] News Release, "Bell Atlantic, 3COM Announce Industry-First DSL Retail Alliance" (Oct. 6, 1999), <www.ba.com/nr/1999/Oct/19991006004.html>.

[28] News Release, "SBC and IBM Offer One-Stop Broadband Solution" (Nov. 17, 1999), <www.sbc.com>.

[29] Fred Dawson, "Broadband Content Heats Up as DSL, Cable Base Grows," Multichannel News (July 5, 1999), <www.multichannel.com/weekly/1999/28/zd28.htm>. The G.Lite standard eliminates the need for a voice-data splitter. Also, because it standardizes transmission parameters, customers can choose their own DSL modem and can obtain access from remote data jacks, such as those in hotels. *See* Joel Conover, "Buyer's Guide: G.Lite SOHO Access," Network Computing (Nov. 29, 1999), available on LEXIS.

[30] Sylvia Dennis, "DSL Taking Off Big Time," Newsbytes News Network (Aug. 17, 1999), 1999 WL 20018859.

[31] *See, e.g.*, TeleChoice, "DSL Deployment Surges Well Beyond Projections; Grows 5 Times Faster than Cable in 6-Month Period" (Aug. 16, 1999), <www.telechoice.com/content/pressreleases/8171999.asp>; Fred Dawson, "Broadband Content Heats Up as DSL, Cable Base Grows," Multichannel News (July 5, 1999) (noting that Forrester "raised its DSL-line projections to 16 million by the end of 2001"), <www.multichannel.com/weekly/1999/28/zd28.htm>.

[32] *See 706 NOI Report* ¶ 41.

expects to pass over 40 percent of the homes in the United States.[33] The effort by CLECs to provide DSL service to residential customers will no doubt intensify as a result of the "line sharing" rules that the Commission adopted on November 18, 1999. According to NorthPoint Communications, this order "promises substantial reductions in loop costs and opens the gates for vibrant competition in the residential DSL market."[34] NorthPoint announced that it is preparing to launch DSL services for residential customers through alliances with Microsoft and Tandy Radio Shack. By the end of 2000, its DSL network will pass nearly 45 percent of all homes in the U.S.[35]

32. Thus, it is nonsense to suggest (as GTE does) that if the merger is allowed to proceed, AT&T/MediaOne will have a window of "two to three years" in which to build a broadband business "against little competition" in its cable service areas.[36] DSL is *already* a competitive force, capturing 100,000 customers per month,[37] and will become an even more potent force during the next two to three years as it becomes ever more widely available. If AT&T and other cable companies do not provide attractive, competitive services, they risk

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[33] Press Release, Covad Communications Group, Inc. (Oct. 20, 1999), <222.covad.com/press_102099.cfm>.

[34] Press Release, "NorthPoint Commends the FCC for Delivering Broadband's Triple Crown," (Nov. 18, 1999), <www.northpointcom.com/pressroom/1999/press_991118ls.html>

[35] Press Release, "NorthPoint Communications Launches Residential Service Trials" (Nov. 18, 1999), <www.northpointcom.com/pressroom/1999/press_991118cs.html>.

[36] Ex Parte Reply Comments of GTE, at 7.

[37] The TeleChoice figures cited earlier indicate that DSL providers will sign up 300,000 customers during the final three months of 1999.

losing many millions of customers to DSL and possibly also to the emerging satellite and wireless broadband technologies.

2. Other broadband technologies will soon become competitive forces

33. Satellite-based technologies are rapidly emerging as a viable means of providing broadband Internet services to consumers. Several companies are already offering satellite-based broadband Internet service, including DirecPC, eSat and Gilat.[38] For example, DirecPC, a product of Hughes Network Systems, offers consumers "nationwide access to the Internet at speeds of up to 400 kbps."[39] Hughes has entered into an alliance with AOL to develop dual purpose AOL TV/DirecTV set-top boxes, and by early next year the AOL-Plus broadband Internet service will be available nationwide via the DirecPC satellite network[40] – a network that is likely to become even more popular as a result of the new law regarding local retransmission. In addition, Teledesic is spending $9 billion on its "Internet-in-the-Sky" project, which will provide consumers with broadband Internet service beginning in 2003.[41] SkyCache, Inc., which currently serves over 3 million Internet users, just announced that it is upgrading its satellite

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[38] *See, e.g.*, <www.direcpc.com/consumer/index>; <www.esatel.com/carrier.htm>; <www.gilat.com>.

[39] *See* <www.direcpc.com/consumer/index>. ZDNet describes the DirecPC services as "fast, useful, and affordable." Frank J. Derfler, Jr., "DirecPC 2.0," ZDNet (Aug. 25, 1998), <www.zdnet.com/products/stories /reviews/ 0,4161,2131474,00.html>.

[40] *See* Press Release, "America Online and Hughes Electronics Form Strategic Alliance to Market Unparalleled Digital Entertainment and Internet Services" (June 21, 1999), <http://www-db.aol.com/corp/news/press/view?release=669&search=hughes>.

[41] *See* "Teledesic, Motorola, Boeing, Matra Marconi Space to Partner on 'Internet-in-the-Sky;' Motorola Will Lead Global Industrial Team," (May 21, 1998) <www.teledesic.com/newsroom/05-21-98.html>. *See also In the Matter of En Banc Hearing on Broadband Services* (July 9, 1998), Transcript Comments of Scott Hooper, co-CEO of Teledesic and Chairman of Nextlink Communications at 9-13 <www.fcc.gov/enbanc/070998/ eb070998.html>.

datacasting service to T3 speeds with Digital Video Broadcast technology.[42] Other companies, including Motorola, Lockheed Martin, Alcatel Espace and Loral, expect to invest over $25 billion to establish broadband satellite services in the next decade.[43] According to industry analysts, these emerging broadband satellite providers will offer their services to a wider market, including consumers.[44]

34. Another emerging broadband access technology is fixed wireless. Cisco recently announced that its fixed wireless broadband technology will be available to consumers by the end of 2000.[45] Sprint plans to use wireless cable technology to provide transport for its bundled offerings of voice and broadband Internet access services to consumers.[46] Nextel has introduced the first Internet-ready wireless phone.[47] Lucent has developed a wireless end-to-end network solution that will allow companies to offer consumers and businesses a direct high-speed wireless connection to the Internet.[48] A multitude of other companies are currently deploying or

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[42] News Release, "SkyCache Delivers Big – Global Internet Datacasting Service to 45 Mbps; Company to Broadcast Web Content, Internet Video Up to T3 Speeds By Year End" (Sept. 14, 1999), <www.xdsl.com/newsreleases/xDSL/ 5162.asp>.

[43] *See generally* Pioneer Consulting, *Global Broadband Access Markets,* Executive Summary (1998).

[44] *See* Pioneer Consulting, *Satellite Data Networks: The Internet's Next Frontier*, Executive Summary at 7 (1997).

[45] John Markoff, "Cisco to Offer More Details on Wireless Technology," New York Times, at C1 (Nov. 29, 1999).

[46] John Borland, "Sprint Readies ION for Consumer Market," CNET News.com (April 12, 1999) <www.news.com>.

[47] Sarah Schafer, "Nextel First With Net Ready Phone," Washington Post, at E3 (June 9, 1999).

[48] "Lucent Technologies Introduces Industry's Most Comprehensive Network Solution for High-Speed Wireless Access to the Internet," PR Newswire (March 18, 1999).

conducting trials of broadband fixed wireless services, including American Telecasting Inc., CAI Wireless Inc., CS Wireless Inc., Speedus.Com, DirectNET, Teligent Fixed Wireless, Speed-Choice, Advanced Radio Telecom, GoFast, Nucentrix Broadband Networks, IJNT, People's Choice TV, Wavepath and Wireless One.[49]

35. In sum, cable modem providers like AT&T and MediaOne already face vigorous broadband competition from DSL providers, and they will likely also face substantial competition from satellite and wireless technologies in the near future.

B. Hausman and Sidak Have Not Shown Any Likelihood that AT&T/MediaOne Will Have Monopoly Power in Any Internet Market

36. Hausman and Sidak do not attempt to argue that the proposed merger would bring about an increase in market power through the elimination of horizontal competition. That is because Excite@Home and Road Runner-based services generally are not offered in the same areas. Furthermore, as shown below, the Hausman-Sidak analysis of market power arising from network effects and "lock-in" is flawed and does not provide any basis for finding the existence of, or a threat of the creation of, monopoly power.

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[49] *See* <www.amtele.com/ci_index.htm>; <www.caiwireless.com>; <www.caiwireless.com/markets.html>; <www.speedus.com>; <www.directnet1.net>; <www.teligent.com>; <www.speedchoice.com>; <www.art-net.net>; <www.gofast.net>; <www.nucentrix.net>; <www.ijnt.net>; <www.sprint.com/Stemp/press/releases/9904/9904120773.html>; <www.wavepath.com>; <www.wavepath.com>; <www.wireless-one.com>.

1. The Merger of AT&T and MediaOne Will Not Reduce Competition Between Horizontal Rivals

37. The plain fact is that, from the consumer's vantage point, Excite@Home and Road Runner do not compete as providers of cable Internet services. As the Commission noted in its *TCI* decision:

> [I]t does not appear that other cable modem service providers such as Road Runner ... are likely to be participants in the markets served by @Home; that is, *from a customer's perspective they are not competitors*.[50]

The merger therefore will not limit consumers' choices of Internet service providers. Furthermore, it will not lead to higher prices – as GTE itself admits: "GTE has never suggested that AT&T/MediaOne would use its broadband market power to raise the price of its services."[51]

2. Hausman and Sidak have not shown any likelihood that the merger will create monopoly power because of "consumer lock-in" or "network effects"

38. Hausman and Sidak contend that because cable modem service enjoys an "early lead" in the broadband arena, "a cable provider could wield significant market power" as a result of two related phenomena – "consumer lock-in" and "network effects."[52] The "lock-in" phenomenon refers to a situation where consumers find it costly or difficult to switch to a competing product. "Network effects" refer to a situation where the value to the consumer of a

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[50] *AT&T-TCI*, ¶ 73 (emphasis added).

[51] Ex Parte Reply Comments of GTE, p. 4 (Nov. 1, 1999).

[52] Hausman and Sidak Reply ¶ 40.

particular product depends on how many others are using it. When network effects are strong, the most popular product may become pre-eminent, and new products may find it difficult to get a foothold in the marketplace.

39. Hausman and Sidak do not cite any evidence that either lock-in or network effects are having an impact in the broadband arena. As pointed out earlier, DSL sales are growing at an explosive rate – faster than almost anyone predicted, and faster than cable modem sales. The figures are totally inconsistent with the idea that DSL providers are having difficulty selling their product because of network effects – *i.e.*, because cable modem service got off to a faster start and has a larger installed base.

40. Furthermore, Hausman and Sidak have not demonstrated that cable modem customers are in fact "locked in." As we pointed out in our initial declaration, "switching from cable modem service to service via satellite or DSL involves virtually no loss of sunk investment by the customer."[53] Hausman and Sidak do not quarrel with that proposition, but they suggest that consumers may be locked in because of their desire for content that can *only* be obtained with cable modem service.[54] But Hausman and Sidak cannot identify *any* content offered by either AT&T or MediaOne through their Excite@Home or Road Runner-based services that consumers could not obtain if they switched to DSL – let alone content which is so unique, so compelling, as to make consumers unwilling to switch. In fact, we understand from Excite@Home and Road Runner that exclusivity, where it exists at all in this arena, generally

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[53] Ordover-Willig MediaOne Decl. ¶ 109.

[54] Hausman-Sidak Reply ¶ 41.

runs in the *other* direction – *i.e.*, to gain the right to feature desirable third-party content on the home page, Excite@Home or Road Runner may agree not to feature rival content (although consumers can, of course, reach *any* content, including the rival content, by simply entering the appropriate Internet address).

41. Hausman and Sidak speculate that at some point in the future, some "content providers" might enter into exclusive arrangements with AT&T. Of course, there is nothing stopping other broadband ISPs from developing and delivering their own unique content. This is the essence of rivalry in markets with differentiated products. There is nothing anticompetitive about such arrangements because there are vast quantities of content and the barriers to entry into content creation are low. Indeed, it is our understanding that AOL has exclusive rights to certain content, yet – notwithstanding AOL's large share – the ISP market remains fiercely competitive. Thus, even if AT&T were to enter into exclusive arrangements with content providers, and even if those arrangements created a degree of customer loyalty, Hausman and Sidak have not demonstrated that such loyalty (what they call "lock-in") would diminish competition and harm consumers. On the contrary, as Shapiro and Varian explained:

> In the presence of lock-in, intense competition will force you to offer very attractive initial terms to customers, so that on an overall, life-cycle basis, you would earn no more than a normal rate of return on your investment....
>
> By and large, the key to obtaining superior financial performance in "lock-in" markets is the same as in other markets: by product differentiation, offering something distinctly superior to

what your rivals can offer, or by cost leadership, achieving superior efficiency.[55]

3. Competition from DSL and other broadband technologies will prevent anticompetitive conduct

42. Given the fierce competition that now exists between cable modems and DSL, as well as the emergence of other broadband technologies, AT&T/MediaOne will be in no position to adopt anticompetitive restrictions. Although DSL will not be universally available in the short term, it is being rapidly deployed by both incumbent and competitive local exchange carriers. SBC announced that DSL will be available to 80 percent of its customers by 2002, and ultimately to everyone.[56] GTE, on the other hand, maintains that it will be able to reach at most 65 percent of its customers, unless its merger with Bell Atlantic is approved, because it will not be "in a position to make the $6.1 billion gamble that SBC recently announced."[57] Yet GTE's recent public announcements confirm that it not only is in a position to "gamble" on aggressive DSL deployment, but that it is in fact doing so.

43. Even assuming that these limitations on DSL deployment are real, and even assuming the most conservative forecasts, DSL will be sufficiently available and will have a large enough customer base to constrain any imagined anticompetitive behavior by AT&T and

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[55] Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, at 145-46 (1999).

[56] News Release, "SBC Launches $6 Billion Broadband Initiative" (Oct. 19, 1999), <www.sbc.com>.

[57] Ex Parte Reply Decl. of Dale E. Veeneman and Evertt H. Williams ¶ 16 (Oct. 1999).

other cable companies. Because a large percentage of AT&T's cable modem customers will have competitive alternatives – if not now, then in the near future – AT&T will have every incentive to offer the most attractive package of services, including access to content. AT&T's need to compete for the customers who *can* obtain DSL service will benefit even those who *cannot yet* do so.

44. The fact that DSL is not universally available would be competitively significant only if one believed that AT&T could effectively discriminate against those customers who do not *yet* have a broadband alternative – for example, by imposing content restrictions or establishing higher prices applicable only to homes that happen to be located more than 18,000 feet from the local telephone switch.[58] AT&T has not adopted such a practice, and no one argues that it can or will do so. Such short-sighted discrimination, even if practical, would not likely be dynamically profitable, and surely would earn the wrath of consumers and regulators alike.

C. Hausman and Sidak Have Not Shown Any Likelihood that AT&T Will Adopt Anticompetitive Content Restrictions

45. In our initial declaration, we demonstrated that AT&T has a strong incentive to provide customers with the content they want. If AT&T bores or antagonizes cable modem users, its existing subscribers will simply go elsewhere. Even more importantly, potential customers who are considering broadband may increasingly choose one of AT&T's competitors – or decide to forego broadband altogether – if they learn of shortcomings in AT&T's service or

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[58] According to GTE, "ADSL is not provided to customers whose loops are longer than 18,000 feet." Ex Parte Reply Decl. of Dale E. Veeneman and Evertt H. Williams ¶ 10 (Oct. 1999).

content. Thus, it is in AT&T's self-interest to continue its policy of permitting all cable modem subscribers to reach the public Internet in just "one click" and to bypass the Excite@Home and Road Runner home pages altogether by selecting a different portal or browser as the start-up page.[59]

46. Hausman and Sidak respond that AT&T would "have an incentive to engage in discriminatory acts against unaffiliated broadband content providers so long as the gains from discrimination (associated with a share in the margins from affiliated content providers) outweigh any losses from discrimination (associated with lost margins on customers who switch to other broadband or narrowband alternatives)."[60] They propose a mathematical "decision rule" in which the variable q represents "the fraction of subscribers that leave AT&T due to its more limited range of content." They argue that "so long as the fraction of marginal customers (q) is small, it typically pays for AT&T to discriminate against unaffiliated broadband content providers."[61] Such discrimination, they contend, would cause great harm to those who choose cable modem service: "consumers would suffer tremendous welfare losses if they were denied programming choices over the Internet."[62]

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[59] *See* Declaration of Susan Marshall ¶¶ 3-4 (Sept. 1999), Appendix I to Reply Comments of AT&T Corp. and MediaOne Group, Inc.

[60] Hausman-Sidak Reply ¶ 44.

[61] Hausman-Sidak Reply ¶ 45.

[62] Hausman-Sidak Reply ¶ 51.

47. This analysis of AT&T's "incentives" is illogical. Given that consumers have broadband alternatives, why assume that only a "small" number would leave AT&T if it deprived them of the content they desire, thereby causing them to "suffer tremendous welfare losses"? If AT&T were to deprive customers of what they want, it would be handing its competitors a formidable advantage in the upcoming battle for the patronage of tens of million Internet subscribers.

48. Moreover, the "decision rule" posited by Hausman and Sidak is incorrectly specified because it only takes into account the *existing* AT&T customers who would go elsewhere because of content restrictions. It ignores the much larger population of *potential* customers who might decide not to sign up with AT&T in the first place. To illustrate just how significant this is, we performed a sensitivity analysis utilizing the TeleChoice forecast cited earlier. Under that forecast, DSL will grow at a monthly rate of 11.4 percent in 2000 and 7.6 percent in 2001. Suppose that the cable companies were to adopt content restrictions, and as a result DSL became more attractive and its monthly growth rate was boosted by *one percent*. Assume, realistically, that incremental growth would come from customers who might otherwise sign up with cable companies. Under these assumptions, DSL would capture an additional *1,200,000 customers* who would otherwise have subscribed to cable modem services. That is a huge number, representing more than the total combined subscriber base of both Excite@Home and Road Runner-based services as of August 1999.[63] This computation illustrates the significance of growth in the competition between modes of broadband access. In this environment, actions that give DSL even a small competitive edge can have enormous profit consequences.

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[63] FCC Cable Services Bureau, *Broadband Today*, at 25 (Oct. 1999).

49. Hausman and Sidak argue that AT&T can discriminate against unaffiliated content providers in three ways:

> First, AT&T can give preference to an affiliated content provider by caching its content locally.... Second, AT&T can limit the duration of streaming videos of broadcast quality to such an extent that they can never compete against cable programming. Stated more generally, AT&T can block any competing content that it wants to.... Third, AT&T could impose proprietary standards that would render unaffiliated content useless.[64]

50. These concerns would be legitimate *only* if all of the following three questions were answered in the affirmative:

(1) Is it likely that the gains to AT&T from engaging in such discrimination would outweigh the loss of actual and potential subscribers?

(2) Does the merger of AT&T and MediaOne *increase* the likelihood that the combined entity would discriminate in this fashion?

(3) Would such discrimination harm competition in any relevant market?

For the most part, Hausman and Sidak do not even ask – let alone answer – these critical questions.

51. **Local caching.** The first form of discrimination mentioned by Hausman and Sidak involves local caching. Like most ISPs, AT&T and MediaOne use cache servers to store content from heavily trafficked sites that would otherwise have to be transmitted over the

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[64] Hausman-Sidak Reply ¶¶ 47-49.

network again and again. We understand that content from third party websites is cached through an automatic process that employs an algorithm based on traffic patterns – *i.e.*, the number of "hits" that a site receives from subscribers – to determine which sites to cache. The use of this technology reduces congestion on the network and speeds delivery of cached content. Because the caches are of limited size, only a small fraction of the content that subscribers may wish to view can be stored in this manner.

52. Hausman and Sidak claim that AT&T and MediaOne have an incentive to give a preference to affiliated content providers when deciding what to cache, and they further assert that such a preference would be anticompetitive. This argument is unfounded. First, Hausman and Sidak have not shown that such preferential caching would actually enable AT&T (or its affiliated content providers) to earn higher profits because of the speedier delivery. Second, if there really were such an incentive to give a caching preference to affiliated content, it would exist whether or not AT&T merged with MediaOne. Third, even if AT&T did provide preferential caching to affiliated content providers, such a preference would not harm competition in any relevant market. Indeed, Hausman and Sidak do not even identify a relevant market in which to examine the consequences of such conduct. Many ISPs, including AOL, use caches and employ other techniques (such as on-screen buttons) to facilitate access to preferred content providers. Hausman and Sidak do not cite any evidence that such practices have harmed competition.

53. **Video Streaming.** Hausman and Sidak argue AT&T has an incentive to impose limits on streaming video and to block any content that competes with cable programming. This incentive, if it really exists, would apply to all cable companies, and it would apply equally whether AT&T and MediaOne merged or stayed separate. Hence, this concern is not an argu-

ment against the merger. Moreover, as we noted in our earlier declaration, Internet video streaming is not itself a relevant market, and any limitations that AT&T imposed on video streaming would not harm competition in any relevant market.[65]

54. Hausman and Sidak focus particularly on duration limits for video streaming provided via cable modem. We previously pointed out that "there are pro-competitive explanations for limits on cable-delivered Internet video streaming, including the need, inherent in the shared nature of the cable plant, to ensure that a few bandwidth 'hogs' do not slow down and degrade the experience of all users."[66] In response, Hausman and Sidak suggest that "a less restrictive allocation mechanism (such as prices or overall caps on per customer usage) could be designed to ration efficiently the capacity of AT&T's cable network."[67] If there really is a more efficient mechanism, the realities of the market will drive AT&T to adopt it. If, on the other hand, AT&T imposes *unnecessary* restrictions, it will be punished in the marketplace as consumers select DSL, satellite or some other broadband medium that delivers the streaming video content they desire.

55. Hausman and Sidak's argument is markedly specious if one believes that video streaming could be the "killer application" that will distinguish broadband from narrowband in the minds of millions of consumers. If that is true, then any broadband provider that imposed

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[65] Ordover-Willig MediaOne Decl. ¶ 117.

[66] *Id.*

[67] Hausman-Sidak Reply ¶ 48.

unnecessary limits on video streaming would be destroying its attractiveness to consumers and, ultimately, its profitability.

D. Hausman and Sidak Have Not Shown that AT&T Is Likely to Adopt a Closed, Proprietary Broadband Platform

56. Hausman and Sidak repeat the shibboleth that AT&T may adopt closed, proprietary standards that would prevent software applications written for AT&T's platform from running on other Internet platforms. They state:

> The academic literature on standards and network externalities provides theoretical and empirical support for the conjecture that AT&T could impose proprietary standards.... Because AT&T is the first to the broadband residential marketplace and because the marginal cost of writing software for a second standard is substantial, software designers will likely write applications that are exclusively compatible with AT&T's standard, thereby increasing the value of AT&T's broadband network relative to other broadband networks.[68]

57. In fact, both the economic literature and the realities of the Internet marketplace point to powerful economic forces pushing AT&T to continue to promote and support open, compatible standards. If, instead, AT&T were to provoke a "standards war" by adopting a closed, proprietary platform for broadband Internet access, history teaches that its standard would probably be defeated – and so the war is unlikely ever to be fought.

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[68] Hausman-Sidak Reply ¶ 50.

58. Economists have studied a number of standards wars. They have tried to identify the forces that led some firms to adopt incompatible, proprietary designs and the factors that influenced the outcome of such wars. Several conclusions are noteworthy:

59. A standards war poses very high risks to a firm initiating it because of the winner-take-all tendency in markets prone to tipping; if the firm sponsors a standard that is not accepted in the marketplace, it may find itself excluded altogether. Therefore, if the battle can be avoided by the adoption of a common standard, a firm concerned with the long-run viability of its offering should not launch a war based on a proprietary technology unless it is highly confident of victory.[69]

60. In a war between an open standard and a proprietary standard, reliance on the proprietary standard is especially risky. As Shapiro and Varian write:

> [F]ailure to open a technology can spell its demise, if consumers fear lock-in or you face a strong rival whose system offers comparable performance but is nonproprietary. Sony faced precisely this problem with its Beta video cassette recorder system and lost out to the more open VHS system, which is now the standard. Openness will bolster your chances of success by attracting allies and assuring would-be customers that they will be able to turn to multiple suppliers down the road.[70]

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[69] Stanley M. Besen & Joseph Farrell, "Choosing How to Compete: Strategies and Tactics in Standardization," 8 Jnl. Econ. Perspectives 117 (Spring 1994); Michael L. Katz & Carl Shapiro, "Systems Competition and Network Effects," 9 Jnl. Econ. Perspectives 93, 111 (Spring 1994).

[70] Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, at 197 (1998).

61. Open standards are particularly likely to prevail in Internet-related fields. The Internet has a history of open, compatible standards, which are constantly reviewed and updated by standard-setting bodes such as the Internet Engineering Task Force (IETF).[71] Indeed, as Chairman Kennard has written, the spectacular success of the Internet is due in large measure to the use of open standards.[72] Recent history is filled with examples of companies that advanced Internet-related proprietary standards, only to be defeated by open standards.[73] As Shapiro and Varian sum up:

> Unless you are in a truly dominant position at the outset, trying to control the technology yourself can leave you a large share of a tiny pie.... The openness strategy is critical when no one firm is strong enough to dictate technology standards. Openness also arises naturally when multiple products must work together, making coordination in product design essential.
>
> In some industries with strong network characteristics, full openness is the only feasible approach. For years basic telecommunications standards have been hammered out by official standard setting bodies, either domestically or internationally.[74]

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[71] One need only skim through the activities of the IETF's many working groups to appreciate the breadth and depth of its standard-setting activities. *See* <www.ietf.org/proceedings/99jul

[72] William Kennard, Wall Street Journal, at A18 (Aug. 24, 1999) ("the Internet's open protocols as well as FCC decisions not to regulate the Internet ... are at the heart of the network's growth. E-mail, the Web and Internet radio are only some of the applications that have been developed and deployed in this open environment").

[73] A number of examples are described in the Affidavit of Thomas B. London ¶¶10-11, Reply Comments of the Applicants in *In the Matter of The Global Venture of AT&T Corp. and British Telecommunications plc*, IB Docket No. 98-212.

[74] Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, at 199, 201 (1998).

62. A firm must hold various "strategic assets" in order to have a chance of prevailing in a standards war, particularly when competing against an open standard. Key assets are (1) a superior technology protected by intellectual property rights,[75] (2) a large installed base of customers who are "locked in" to the new technology,[76] (3) a significant first-mover advantage,[77] and (4) strength in the complementary products that customers will use.[78] Furthermore, to win a standards war, a firm needs to convince the marketplace that its standard is likely to prevail. That is because *expectations* are critical in a market with network effects, where customers and suppliers want to be on the winner's bandwagon.[79]

63. Hausman and Sidak simply ignore the foregoing considerations and offer no plausible basis for concluding that AT&T/MediaOne could successfully adopt a closed, proprietary platform. AT&T and MediaOne lack the "strategic assets" described above. Hausman and

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[75] *See* Mark A. Lemley & David McGowan, "Legal Implications of Network Economic Effects," 86 Calif. L. Rev. 479, 527 n. 205 (1998) (pointing out that a company cannot expect to win a standards war "before developing an intellectual property right" in its proprietary technology).

[76] Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, at 270-71 (1998).

[77] William E. Cohen, "Competition and Foreclosure in the Context of Installed Base and Compatibility Effects," 64 Antirust L. Jnl. 535, 536-39 (1996); Michael L. Katz & Carl Shapiro, "Systems Competition and Network Effects," 8 Jnl. Econ. Perspectives 93, 107 (Spring 1994); Stanley M. Besen and Joseph Farrell, "Choosing How to Compete: Strategies and Tactics in Standardization," 8 Jnl. Econ. Perspectives 117, 122 (Spring 1994).

[78] Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, at 270-72 (1998).

[79] Jonathan Farrell & Garth Saloner, "Standards, compatibility and innovation," 16 Rand Jnl. Econ. 70 (1985); Stanley M. Besen & Joseph Farrell, "Choosing How to Compete: Strategies and Tactics in Standardization," 8 Jnl. Econ. Perspectives 117 (Spring 1994); Michael L. Katz & Carl Shapiro, "Technology Adoption in the Presence of Network Externalities," 94 Jnl. Pol. Econ. 822, 824 (1986).

Sidak do not claim that AT&T and MediaOne have developed a *technologically superior* broadband platform. Moreover, AT&T and MediaOne do not have a large installed base, and, as explained earlier, their customers are not locked in.[80] Furthermore, neither AT&T nor MediaOne is a major supplier of complementary products used by Internet subscribers – namely, content and applications.

64. Most importantly, Hausman and Sidak do not explain why software engineers would flock to develop applications for AT&T's (hypothetical) closed platform rather than for the open Internet platform that is available to everyone else. The only rationale they give is that "AT&T is the first to the broadband residential marketplace" and therefore, they assert, "software designers will likely write applications that are exclusively compatible with AT&T's standard."[81] This did not happen when cable modem service had a huge lead in the residential marketplace; now, DSL is growing more rapidly than cable modem service.

65. Software developers do not like closed, proprietary standards. Writing for such a standard raises costs (because of the need to accommodate the proprietary interfaces) and limits the market for the product. If a software developer chose to write applications exclusively for AT&T's (hypothetical) closed platform, it would be forsaking:

- the rest of the world outside the United States;

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[80] Hausman and Sidak do not appear to contend that AT&T's customers are *currently* locked in. Rather, their concern is that *if* AT&T adopts a closed platform that provides the exclusive access to applications and content, *then* it will be able to lock in some customers.

[81] Hausman-Sidak Reply ¶ 50.

- businesses, governments, schools and other institutions that generally do not subscribe to cable television and that would in all likelihood obtain broadband Internet access through some other means;
- residential customers who obtain broadband access from DSL, wireless or satellite;
- residential customers who obtain cable modem service from another company; and
- the vast majority of Internet users who rely on dial-up access. (Some applications may be *targeted* at broadband users, but may nevertheless work with dial-up access.)

66. A software developer who wanted to reach the global market would see an enormous demand for DSL-based broadband service, regardless of whether DSL or cable modem service proves to be more popular in the United States. According to one recent study, DSL sales will outpace cable modem sales in Canada, the UK, France and Germany.[82] On a worldwide basis, it has been forecast that shipments of DSL modems will reach 9.8 million units in 2003, as compared to 5.3 million cable modems.[83]

67. Thus, if AT&T were to adopt a closed, proprietary platform for broadband access, the likelihood is that software developers would focus their efforts on the open platform used by everyone else. There is little chance that AT&T would adopt such a misguided strategy, and little risk of anticompetitive consequences if it did.

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[82] Strategis Group, "DSL Challenges Cable Modems for International Residential High-Speed Internet Access" (Aug. 17, 1999), <www.strategisgroup.com/press/pubs/inhispd.html>.

[83] Brian O'Connell, "DSL Holds Edge Over Cable Modems – Dataquest," Newsbytes News Network, Sept. 13, 1999.

E. Hausman and Sidak Have Not Shown that the Merger Is Likely to Lead to Higher Home-Page Advertising Prices

68. Hausman and Sidak never explain precisely why they believe the merger of AT&T and MediaOne will lead to higher advertising prices for their broadband home pages. This claim is based on a series of assumptions (mostly unstated) that Hausman and Sidak do not justify:

69. *First*, Hausman and Sidak assume that Excite@Home and Road Runner are merging. That is not the case. AT&T is merging with MediaOne, and we understand that, post-merger, AT&T will not have the capability by itself to change the business plans of either Excite@Home or Road Runner.

70. *Second*, Hausman and Sidak assume that "broadband Internet advertising" is a relevant market.[84] If it is not – as we show below – then this argument collapses, for Excite@Home and Road Runner do not and will not account for a significant share of advertising in any other market, however it may be defined.

71. *Third*, Hausman and Sidak assume that Excite@Home and Road Runner sell *all* the broadband Internet advertising that is viewed by their subscribers. The truth, of course, is that they only sell the advertising on their respective home pages – not the advertising on the vast number of sites visited by their subscribers. As everyone who surfs the Web can testify, the ads on the ISP's home page represent only a fraction of the advertising they see. Consequently, if Excite@Home and Road Runner tried to raise the prices they charge for access to their home

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[84] Hausman-Sidak Reply ¶ 53.

pages, advertisers could readily switch to alternative sites. Hausman and Sidak claim to have "evidence that AT&T is currently exercising market power in the broadband advertising market," but this "evidence" consists of nothing more than a statement that Excite@Home's price for *broadband* ads is somewhat higher than the average price for *narrowband* ads.[85] Such a price difference proves nothing if, as Hausman and Sidak contend, narrowband advertising is in a separate market. In any event, the price premium is insignificant.[86]

72. *Fourth*, even if Excite@Home and Road Runner *did* control all broadband Internet advertising to their subscribers, and even if their pricing were not constrained by other modes of advertising, Hausman and Sidak have still failed to demonstrate that a merger of those two companies would lead to higher advertising rates. There is no reason to expect any effect because the two services do not provide advertising *to the same broadband subscribers*. If each company were charging a supracompetitive price before a merger, jointly they would not be able to charge more afterwards.

73. Hausman and Sidak define the "market for broadband advertising" as advertising on "broadband portals."[87] However, they have not proven that advertising on broadband portals

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[85] *See* Hausman-Sidak Reply ¶ 55, citing Corey Brice, "Road Runner Beefs Up Advertising Push," *CNET News* (Aug. 4, 1999), <news.cnet.com/news/0-1004-200-345708.html?tag=st.ne.1002>.

[86] The article cited by Hausman and Sidak reported that Excite@Home charges $7 to $8 more per thousand viewings (CPM) than "average Web sites." *See id.* That price difference is insignificant relative to the range of prices observed in the marketplace. Advertising rates on the Web currently range from $20 (or less) to $75 (or more) per CPM. *See* Min's New Media Report, Nov. 8, 1999, available on LEXIS.

[87] Hausman-Sidak Reply ¶¶ 53-54.

constitutes a separate relevant market from advertising on narrowband portals or on Internet sites generally.[88] Hausman and Sidak claim that "advertisers do not view narrowband advertisements as a close substitute for broadband advertisements,"[89] but they do not support their claim with evidence. Why is a normal "banner" ad – one that does not require high-speed access – in a different market just because it is displayed on a broadband portal?

74. Hausman and Sidak contend that broadband users have somewhat different demographic profiles than narrowband users. The evidence on this point is contradictory.[90] In any event, this is not a market-defining difference. Broadband subscribers can visit the same sites as narrowband subscribers, and when they do they see the same ads. Furthermore, a Web advertiser who wants to target particular demographic groups can readily do so by placing ads on Web sites catering to such people.[91] As the number of broadband subscribers grows, so too will the number of Web sites aimed at broadband users, thereby giving advertisers more and more demographically-targeted sites for "rich media," interactive ads that take full advantage of broadband's capabilities.

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[88] Although we believe that the relevant market likely includes all forms of advertising (*see* Ordover-Willig MediaOne Decl. ¶ 119), the only question that need be addressed here is whether the market is *at least* as broad as all Internet advertising.

[89] Hausman-Sidak Reply ¶ 54.

[90] Sidak and Rubinfeld rely on a report of the Strategis Group indicating that broadband users have *lower* incomes than narrowband users. But Forrester Research found that broadband users have *higher* incomes. *Compare* Declaration of Daniel L. Rubinfeld and J. Gregory Sidak ¶ 22 (Aug. 1999) *with* The Forrester Brief, <www.forrester.com/ER/Research/Brief/0,1317,3858.FF.html>.

[91] *See, e.g.*, "Giving away the E-Store," Time Magazine, at 58-60 (Nov. 22, 1999).

75. In sum, even if Excite@Home and Road Runner were merging, that combination would not lead to higher Internet advertising rates because advertisers have many alternative ways of reaching subscribers in any demographic group. Not surprisingly, this objections has not been raised by any of the advertisers themselves; it comes only from AT&T's ILEC competitors. Moreover, it is ludicrous for Hausman and Sidak to suggest that such a merger would be tantamount to a tax on e-commerce.[92] A subscriber who wants to buy a book from Amzaon.com or an airplane ticket from Priceline.com need only visit their Web sites – which are just one click away. The merger will not raise the cost of such transactions.

F. Hausman and Sidak Have Not Shown that the Merger Will Reduce Competition in Any Telephony Market

76. Hausman and Sidak raise a host of speculative arguments about the effect of the merger on telephony markets. First, they contend that AT&T will have "a strong incentive to tie long-distance service to local cable telephony."[93] Even if such tying arrangements were adopted, that would not justify a regulatory response. As we have previously explained, regulation of tying arrangements should be confined to situations in which there is monopoly power over the tying product *and* a real danger of creating market power in a relevant tied market.[94] Obviously, AT&T will not have monopoly power as a provider of local telephone service, given the dominance of those markets by GTE and other incumbent LECs, and there is no danger of AT&T's

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[92] Hausman-Sidak Reply ¶¶ 56-58.

[93] Hausman-Sidak Reply ¶¶ 62.

[94] *See* Ordover-Willig MediaOne Decl. ¶ 69.

obtaining market power in the fiercely competitive long distance market.[95] Many carriers are (or will be) offering bundles of telecommunication services because that is what consumers want. Moreover, each component of these bundles is (and will be) available on a stand-alone basis.

77. Hausman and Sidak also argue that, notwithstanding AT&T's public commitment to cable-based Internet telephony, it will scuttle the development of that technology, perhaps by sabotaging the efforts of the CableLabs consortium (which is developing network specifications), or "caus[ing] delays for customers using alternative IP telephony providers by implementing suboptimal routing strategies."[96] We understand that AT&T has no such plans and remains fully committed to IP-based telephony. Moreover, even if AT&T were to *abandon* its initiative to provide cable-based Internet telephony, and were to rely exclusively on circuit-switched technology for its cable-based telephone services, that would not harm competition in any relevant market. "Cable-based Internet telephony" is not a relevant market, nor is "Internet telephony." Rather, these types of telephony are part of the local telephone markets, in which market power is wielded by GTE and other incumbent LECs – not AT&T.

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[95] Whatever market power AT&T may once have possessed as a long distance carrier disappeared long ago. *See Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd. 3271 (1995).

[96] Hausman-Sidak Reply ¶ 65. They also suggest that AT&T will "design proprietary IP telephony interfaces that would raise the costs of competitive providers." *Id.* That concern is unfounded for the reasons we explained in the affidavit we submitted on February 17, 1999, in support of the Reply Comments of the Applicants in *In the Matter of The Global Venture of AT&T Corp. and British Telecommunications plc*, IB Docket No. 98-212.